

Notice of Allowability

Application No.

10/719,660

Applicant(s)

TIKARE, RAVEENDRA
KHANDURAO

Examiner

Susannah Chung

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/20/2004.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>010406</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>12/20/04</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Claims 1-16 are pending in the instant application.

Information Disclosure Statement

The information disclosure statement (IDS), filed on 12/20/2004 has been considered. Please refer to Applicant's copy of the 1449 submitted herewith.

Priority

This application is a CON of PCT/IB02/01689, filed on 05/16/2002.

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) by application no. 0112322.3 filed in the United Kingdom Patent Office on 05/21/2001, which papers have been placed of record in the file. The application names an inventor or inventors named in the prior application.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-10 drawn to a process for the stereospecific preparation of an ester of

formula (I):
$$\text{Ph} - \text{CH}_2 - \text{CH}_2 - \overset{\bullet}{\text{CH}}(\text{OR}^2) - \text{COOR}^1$$
, wherein **R1** is C1-6 alkyl and **R2** is hydrogen, a protecting group or a leaving group, wherein the process comprises

reacting a nitrile of formula (II):
$$\text{Ph} - \text{CH}_2 - \text{CH}_2 - \overset{\bullet}{\text{CH}}(\text{OH}) - \text{CN}$$
, with a solution of an inorganic acid in an alcohol; and wherein * signifies the (R) stereoisomer; and optional conversion of a compound of formula (I), wherein **R2** is H, to the compound of formula (I), classified in class 560/103.

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II. Claims 11-16 drawn to a process for the stereospecific preparation of an ester of

formula (I): $\text{Ph} - \text{CH}_2 - \text{CH}_2 - \overset{*}{\text{CH}}(\text{OR}^2) - \text{COOR}^1$, wherein **R1** is C1-6 alkyl and **R2** is hydrogen, a protecting group or a leaving group, wherein the process comprises

reaction of an imine of formula (III): $[\text{Ph} - \text{CH}_2 - \text{CH}_2 - \overset{*}{\text{CH}}(\text{OR}^2) - \text{CH}=\text{NH}, \text{HX}]$, wherein **R2** is as defined in formula (II); and **X** is an anion of an inorganic acid, with an alcohol of formula R1OH , wherein **R1** is C1-6 alkyl.

Applicant is reminded that upon cancellation of claims to a nonelected invention, the inventions must be amended in compliance with 37 C.F.R. 1.48(b) if one of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 C.F.R. 1.48(b) and by the fee required under 37 C.F.R. 1.17(i).

Markush claims must be provided with support in the disclosure for each member of the Markush group. See MPEP 608.01(p). Applicant should exercise caution in making a selection of a single member for each substituent group on the base molecule to be consistent with the written description.

Rationale Establishing Patentable Distinctiveness Within Each Group

Each Group listed above is directed to or involves the use of compounds which are recognized in the art as being distinct from one another because of their diverse chemical structure, their different chemical properties, modes of action, different effects and reactive conditions (MPEP 806.04, MPEP 808.01). Additionally, the level of skill in the art is not such that one invention would be obvious over the other invention (Group), i.e. they are patentable over each other. Chemical structures, which are similar, are presumed to function similarly, whereas chemical structures that are not similar are

not presumed to function similarly. The presumption even for similar chemical structures though is not irrebuttable, but may be overcome by scientific reasoning or evidence showing that the structure of the prior art would not have been expected to function as the structure of the claimed invention. Note that in accordance with the holding of Application of Papesch, 50 CCPA 1084, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) and In re Lalu, 223 USPQ 1257 (Fed. Cir. 1984), chemical structures are patentably distinct where the structures are either not structurally similar, or the prior art fails to suggest a function of a claimed compound would have been expected from a similar structure.

The above groups represent general areas wherein the inventions are independent and distinct, each from the other because of the following reasons:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions are two distinct processes of making the compound of formula (I) because two different intermediates are used. These two processes are not capable of use together because of the use of different starting materials, reagents, reaction conditions, etc... Therefore, because of the reasons given above, the restriction set forth is proper and not to restrict would impose a serious burden in the examination of this application.

Advisory of Rejoinder

The following is a recitation of M.P.E.P. 821.04, Rejoinder:

Where product and process claims drawn to independent and distinct inventions are presented in the same application, applicant may be called upon under 35 U.S.C. 121 to elect claims to either the product or process. See MPEP § 806.05(f) and § 806.05(h). The claims to the nonelected invention will be withdrawn from further consideration under 37 CFR 1.142. See MPEP § 809.02(c) and § 821 through § 821.03. However, if applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims, which depend from or otherwise include all the limitations of the allowable product claim will be rejoined.

Where the application as originally filed discloses the product and the process for making and/or using the product, and only claims directed to the product are presented for examination, when a product claim is

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found allowable, applicant may present claims directed to the process of making and/or using the patentable product by way of amendment pursuant to 37 CFR 1.121. In view of the rejoinder procedure, and in order to expedite prosecution, applicants are encouraged to present such process claims, preferably as dependent claims, in the application at an early stage of prosecution. Process claims, which depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance. Amendments submitted after final rejection are governed by 37 CFR 1.116. Process claims which do not depend from or otherwise include the limitations of the patentable product will be withdrawn from consideration, via an election by original presentation (see MPEP § 821.03). Amendments submitted after allowance are governed by 37 CFR 1.312. Process claims which depend from or otherwise include all the limitations of an allowed product claim and which meet the requirements of 35 U.S.C. 101, 102, 103, and 112 may be entered.

Where product and process claims are presented in a single application and that application qualifies under the transitional restriction practice pursuant to 37 CFR 1.129(b), applicant may either: (A) elect the invention to be searched and examined and pay the fee set forth in 37 CFR 1.17(s) and have the additional inventions searched and examined under 37 CFR 1.129(b)(2); or (B) elect the invention to be searched and examined and not pay the additional fee (37 CFR 1.129(b)(3)). Where no additional fee is paid, if the elected invention is directed to the product and the claims directed to the product are subsequently found patentable, process claims which either depend from or include all the limitations of the allowable product will be rejoined. If applicant chooses to pay the fees to have the additional inventions searched and examined pursuant to 37 CFR 1.129(b)(2) even if the product is found allowable, applicant would not be entitled to a refund of the fees paid under 37 CFR 1.129(b) by arguing that the process claims could have been rejoined. 37 CFR 1.26(a) states that "[T]he Commissioner may refund any fee paid by mistake or in excess of that required. A change of purpose after the payment of a fee...will not entitle a party to a refund of such fee..." In this case, the fees paid under 37 CFR 1.129(b) were not paid by mistake nor paid in excess, therefore, applicant would not be entitled to a refund. In the event of rejoinder, the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. If the application containing the rejoined claims is not in condition for allowance, the subsequent Office action may be made final, or, if the application was already under final rejection, the next Office action may be an advisory action. Form paragraphs 8.42 through 8.44 should be used to notify applicant of the rejoinder of process claims which depend from or otherwise include all the limitations of an allowable product claim.

In the event of rejoinder, the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104 - 1.106. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. If the application containing the rejoined claims is not in condition for allowance, the subsequent Office action may be made final, or, if the application was already under final rejection, the next Office action may be an advisory action.

The following is a recitation from paragraph five, "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. §103(b)" (1184 TMOG 86(March 26, 1996)):

"However, in the case of an elected product claim, rejoinder will be permitted when a product claim is found allowable and the withdrawn process claim **depends from or otherwise includes all the limitations of an allowed product claim**. Withdrawn process claims not commensurate in scope with an allowed product claim will not be rejoined." (emphasis added)

Therefore, in accordance with M.P.E.P. 821.04 and *In re Ochiai*, 71 F.3d 1565, 37 USPQ 1127 (Fed. Cir. 1995), rejoinder of product claims with process claims commensurate in scope with the allowed product claims will occur following a finding that the product claims are allowable.

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Until, such time, a restriction between product claims and process claims is deemed proper.

Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution to maintain either dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.**

During a telephone conversation with Attorney William Prout on 09/15/2005 a provisional election was made *with traverse* to prosecute the invention of Group I, comprising Claims 1-10 of the process of making the compound of Formula (I) depicted in claim 1, page 9. Affirmation of this election must be made by applicant in replying to this Office action.

Scope of the Elected Invention

Claims 1-10 directed to a process for the stereospecific preparation of an ester of formula (I):

$$\text{Ph} - \text{CH}_2 - \text{CH}_2 - \overset{*}{\text{CH}}(\text{OR}^2) - \text{COOR}^1$$
, wherein **R1** is C1-6 alkyl and **R2** is hydrogen, a protecting group or a leaving group, wherein the process comprises reacting a nitrile of formula (II):

$$\text{Ph} - \text{CH}_2 - \text{CH}_2 - \overset{*}{\text{CH}}(\text{OH}) - \text{CN}$$
, with a solution of an inorganic acid in an alcohol; and wherein * signifies the (R) stereoisomer; and optional conversion of a compound of formula (I), wherein **R2** is H, to the compound of formula (I).

Scope of Withdrawn Subject Matter

Claims 11-16 are withdrawn from further consideration by the examiner, 37 C.F.R. §1.142(b), as being drawn to a non-elected invention. The withdrawn subject matter is patentably distinct from the elected subject matter as it differs in structure and element and would require separate search considerations. In addition, a reference, which anticipates one group, would not render obvious the other.

Rejoinder

Claim 1-10 are directed to an allowable product. Pursuant to the procedures set forth in the Official Gazette notice dated March 26, 1996 (1184 O.G. 86), claims 11-16, directed to the process of making or using the patentable product, previously withdrawn from consideration as a result of a restriction requirement, are now subject to being rejoined. Claims 11-16 are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Since all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, the restriction requirement made on 09/15/2005 via telephonic conference is hereby withdrawn.

Reasons for Allowance

The present invention is directed to a process for the stereospecific preparation of an ester of

formula (I): $\text{Ph} - \text{CH}_2 - \text{CH}_2 - \overset{\bullet}{\text{CH}}(\text{OR}^2) - \text{COOR}^1$, wherein the process comprises reacting a nitrile of

formula (II): $\text{Ph} - \text{CH}_2 - \text{CH}_2 - \overset{\bullet}{\text{CH}}(\text{OH}) - \text{CN}$ or an imine of formula (III):

$[\text{Ph} - \text{CH}_2 - \text{CH}_2 - \overset{\bullet}{\text{CH}}(\text{OR}^2) - \text{CH}=\text{NH}, \text{HX}]$, with a solution of an inorganic acid in an alcohol.

The closest prior art of record is U.S. Pat. No. 5,959,139 (Kurauchi et al.), which teaches a similar process for the stereospecific preparation of an ester of instant formula (I),

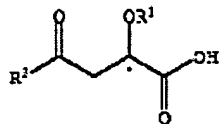
$\text{Ph} - \text{CH}_2 - \text{CH}_2 - \overset{\bullet}{\text{CH}}(\text{OR}^2) - \text{COOR}^1$, except that in the instant application the process comprises

reacting a nitrile of formula (II), $\text{Ph} - \text{CH}_2 - \text{CH}_2 - \overset{\bullet}{\text{CH}}(\text{OH}) - \text{CN}$, or an imine of formula (III),

$[\text{Ph} - \text{CH}_2 - \text{CH}_2 - \overset{\bullet}{\text{CH}}(\text{OR}^2) - \text{CH}=\text{NH}, \text{HX}]$, while in the prior art the ester is prepared by the catalytic

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reduction of the carbonyl group in the 4-position of the optically active 2-acyloxy-4-oxo-4-



arylbutyric acid of formula (II),

Telephone Inquiry

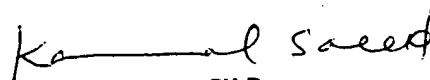
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susannah Chung whose telephone number is (571) 272-6098. The examiner can normally be reached on M-F, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susannah Chung
Patent Examiner, AU 1626

Date: 01/04/2006


KAMAL A. SAEED, PH.D.
PRIMARY EXAMINER